

US EPA ARCHIVE DOCUMENT

*Nitrogen News is a summary of recent publications, news and reports related to the cycling, effects and management of nitrogen. Prepared by Mary O'Brien and Jana Compton. Contact Jana Compton with any questions (Compton.jana@epa.gov)*

*Please note: Most of these links are available to EPA staff through library access – not all links will be available to folks outside EPA, depending on your access to specific journals and websites.*

<b>Special Issues .....</b>	<b>1</b>
<b>Articles .....</b>	<b>1</b>
<b>News .....</b>	<b>17</b>
<b>Reports .....</b>	<b>21</b>
<b>Web Pages.....</b>	<b>21</b>

## **Special Issues**

### **Nitrogen and greenhouse gas exchange**

*European Journal of Soil Science*, 61(5): 627-805. ISSN 1365-2389.

<http://onlinelibrary.wiley.com/doi/10.1111/ejs.2010.61.issue-5/issuetoc>

## **Articles**

Abdalla, M., M. Jones, J. Yeluripati, P. Smith, J. Burke, and M. Williams.

### **Testing DayCent and DNDC model simulations of N<sub>2</sub>O fluxes and assessing the impacts of climate change on the gas flux and biomass production from a humid pasture**

*Atmospheric Environment*, 44(25): 2961-2970, 2010. ISSN 1352-2310.

<http://dx.doi.org/10.1016/j.atmosenv.2010.05.018>

Allen, M. F., E. B. Allen, J. L. Lansing, K. S. Pregitzer, R. L. Hendrick, R. W. Ruess, and S. L. Collins.

### **Responses to chronic N fertilization of ectomycorrhizal pinon but not arbuscular mycorrhizal juniper in a pinon-juniper woodland**

*Journal of Arid Environments*, 74(10): 1170-1176, 2010. ISSN 0140-1963.

<http://dx.doi.org/10.1016/j.jaridenv.2010.05.001>

Augustaitis, A., D. Sopauskiene, and I. Bauzienė.

### **Direct and indirect effects of regional air pollution on tree crown defoliation**

*Baltic Forestry*, 16(1): 23-34, 2010. ISSN .1392-1355

Ball, P. N., M. D. MacKenzie, T. H. DeLuca and W. E. Holben Montana.

### **Wildfire and charcoal enhance nitrification and ammonium-oxidizing bacterial abundance in dry montane forest soils**

*Journal of Environmental Quality*, 39(4): 1243-1253, 2010. ISSN 0047-2425.

<http://dx.doi.org/10.2134/jeq2009.0082>

Baribault, T. W., R. K. Kobe, and D.E. Rothstein.  
**Soil calcium, nitrogen, and water are correlated with aboveground net primary production in northern hardwood forests**  
*Forest Ecology and Management*, 260(5): 723-733, 2010. ISSN 0378-1127.  
<http://dx.doi.org/10.1016/j.foreco.2010.05.029>

Bazhin, N.  
**Theory of methane emission from wetlands**  
*Energy & Environmental Science*, 3(8): 1057-1072, 2010. ISSN 1754-5692.  
<http://dx.doi.org/10.1039/b923456j>

Bernhardt-Romermann, M., C. Romermann, V. D. Pillar, T. Kudernatsch, and A. Fischer.  
**High functional diversity is related to high nitrogen availability in a deciduous forest - evidence from a functional trait approach**  
*Folia Geobotanica*, 45(2): 111-124, 2010. ISSN 1211-9520.  
<http://dx.doi.org/10.1007/s12224-010-9058-5>

Bernot, M. J., D. J. Slobota, R. O. Hall, P. J. Mulholland, W. K. Dodds, J. R. Webster, J. L. Tank, L. R. Ashkenas, L. W. Cooper, C. N. Dahm, S. V. Gregory, N. B. Grimm, S. K. Hamilton, S. L. Johnson, W. H. McDowell, J. L. Meyer, B. Peterson, G. C. Poole, H. M. Valett, C. Arango, J. J. Beaulieu, A. J. Burgin, C. Crenshaw, A. M. Helton, L. Johnson, J. Merriam, B. R. Niederlehner, J. M. O'Brien, J. D. Potter, R. W. Sheibley, S. M. Thomas, and K. Wilson.  
**Inter-regional comparison of land-use effects on stream metabolism**  
*Freshwater Biology*, 55(9): 1874-1890, 2010. ISSN 0046-5070.  
<http://dx.doi.org/10.1111/j.1365-2427.2010.02422.x>

Bjork, R. G., M. Ernfors, U. Sikstrom, M. G. Nilsson, M. X. Andersson, T. Rutting, and L. Klemedtsson.  
**Contrasting effects of wood ash application on microbial community structure, biomass and processes in drained forested peatlands**  
*FEMS Microbiology Ecology*, 73(3): 550-562, 2010. ISSN 0168-6496.  
<http://dx.doi.org/10.1111/j.1574-6941.2010.00911.x>

Blanco, A. C., K. Nadaoka, T. Yamamoto, and K. Kinjo.  
**Dynamic evolution of nutrient discharge under stormflow and baseflow conditions in a coastal agricultural watershed in Ishigaki Island, Okinawa, Japan**  
*Hydrological Processes*, 24(18): 2601-2616, 2010. ISSN 0885-6087.  
<http://dx.doi.org/10.1002/hyp.7685>

Boby, L. A., E. A. G. Schuur, M. C. Mack, D. Verbyla, and J. F. Johnstone.  
**Quantifying fire severity, carbon, and nitrogen emissions in Alaska's boreal forest**  
*Ecological Applications*, 20(6): 1633-1647, 2010. ISSN 1051-0761.  
<http://dx.doi.org/10.1890/08-2295.1>

Botter, G., N. B. Basu, S. Zanardo, P. S. C. Rao, and A. Rinaldo.

**Stochastic modeling of nutrient losses in streams: Interactions of climatic, hydrologic, and biogeochemical controls**

*Water Resources Research*, 46: W08509, 2010. ISSN 0043-1397.

<http://dx.doi.org/10.1029/2009WR008758>

Boutton, T. W., J. D. Liao.

**Changes in soil nitrogen storage and delta N-15 with woody plant encroachment in a subtropical savanna parkland landscape**

*Journal of Geophysical Research-Biogeosciences*, 115: G03019, 2010. ISSN 0148-0227.

<http://dx.doi.org/10.1029/2009JG001184>

Brakebill, J. W., S. W. Ator, and G. E. Schwarz.

**Sources of suspended-sediment flux in streams of the Chesapeake Bay Watershed: A regional application of the SPARROW Model**

*Journal of the American Water Resources Association*, 46(4): 757-776, 2010. ISSN 1093-474X.

<http://dx.doi.org/10.1111/j.1752-1688.2010.00450.x>

Bruin, A. J., B. R. B. Coelho, R. P. Beyaert, R. D. Reeleder, R. C. Roy, and B. Capell.

**High value crops in coarse-textured soil and nitrate leaching - How risky is it?**

*Canadian Journal of Plant Science*, 90(4): 515-528, 2010. ISSN 0008-4220.

<http://dx.doi.org/10.4141/CJPS10007>

Burt, T., G. Pinay, and S. Sabater.

**Ecohydrology Bearings-Invited Commentary What do we still need to know about the ecohydrology of riparian zones?**

*Ecohydrology*, 3(3): 373-377, 2010. ISSN 1936-0584.

<http://dx.doi.org/10.1002/eco.140>

Campos, A.

**Response of soil inorganic nitrogen to land use and topographic position in the Cofre de Perote Volcano (Mexico)**

*Environmental Management*, 46(2): 213-224, 2010. ISSN 0364-152X.

<http://dx.doi.org/10.1007/s00267-010-9517-z>

Castellano, M. J., J. P. Schmidt, J. P. Kaye, C. Walker, C. B. Graham, H. Lin, and C. J. Dell.

**Hydrological and biogeochemical controls on the timing and magnitude of nitrous oxide flux across an agricultural landscape**

*Global Change Biology*, 16(10): 2711-2720, 2010. ISSN 1354-1013.

<http://dx.doi.org/10.1111/j.1365-2486.2009.02116.x>

Chantigny, M. H., P. Rochette, D. A. Angers, S. Bittman, K. Buckley, D. Masse, G. Belanger, N. Eriksen-Hamel, and M. O. Gasser.

**Soil nitrous oxide emissions following band-incorporation of fertilizer nitrogen and swine manure**

*Journal of Environmental Quality*, 39(5): 1545-1553, 2010. ISSN 0047-2425.

<http://dx.doi.org/10.2134/jeq2009.0482>

Chen, L. W. A., P. Verburg, A. Shackelford, D. Zhu, R. Susfalk, J. C. Chow, and J. G. Watson.  
**Moisture effects on carbon and nitrogen emission from burning of wildland biomass**  
*Atmospheric Chemistry and Physics*, 10(14): 6617-6625, 2010. ISSN 1680-7316.  
<http://dx.doi.org/10.5194/acp-10-6617-2010>

Chen, X. M., F. Wo, C. Chen, and K. Fang.  
**Seasonal changes in the concentrations of nitrogen and phosphorus in farmland drainage and groundwater of the Taihu Lake region of China**  
*Environmental Monitoring and Assessment*, 169(1-4): 159-168, 2010. ISSN 0167-6369.  
<http://dx.doi.org/10.1007/s10661-009-1159-3>

Cheng, X. L., Y. Q. Luo, B. Su, X. H. Zhou, S. L. Niu, R. Sherry, E. S. Weng, and Q. F. Zhang.  
**Experimental warming and clipping altered litter carbon and nitrogen dynamics in a tallgrass prairie**  
*Agriculture Ecosystems & Environment*, 138(3-4): 206-213, 2010. ISSN 0167-8809.  
<http://dx.doi.org/10.1016/j.agee.2010.04.019>

Churchland, C., L. Mayo-Bruinsma, A. Ronson, and P. Grogan.  
**Soil microbial and plant community responses to single large carbon and nitrogen additions in low arctic tundra**  
*Plant and Soil*, 334(1-2): 409-421, 2010. ISSN 0032-079X.  
<http://dx.doi.org/10.1007/s11104-010-0392-4>

Cichota, R., H. Brown, V. O. Snow, D. M. Wheeler, D. Hedderley, R. Zyskowski, and S. Thomas.  
**A nitrogen balance model for environmental accountability in cropping systems**  
*New Zealand Journal of Crop and Horticultural Science*, 38(3): 189-207, 2010. ISSN 0114-0671.  
<http://dx.doi.org/10.1080/01140671.2010.498401>

Clapcott, J. E., R. G. Young, E. O. Goodwin, and J. R. Leathwick.  
**Exploring the response of functional indicators of stream health to land-use gradients**  
*Freshwater Biology*, 55(10): 2181-2199, 2010. ISSN 0046-5070.  
<http://dx.doi.org/10.1111/j.1365-2427.2010.02463.x>

Collett, K. S., S. J. Piketh, and K. E. Ross.  
**An assessment of the atmospheric nitrogen budget on the South African Highveld**  
*South African Journal of Science*, 106(5-6): 49-57, 2010. ISSN 0038-2353.  
<http://dx.doi.org/10.4102/sajs.v106i5/6.220>

Comte, L. S. Lek, E. de Deckere, D. de Zwart, and M. Gevrey.  
**Assessment of stream biological responses under multiple-stress conditions**  
*Environmental Science And Pollution Research*, 17(8): 1469-1478, 2010. ISSN 0944-1344.  
<http://dx.doi.org/10.1007/s11356-010-0333-z>

- Cox, F., N. Barsoum, E. A. Lilleskov, and M. I. Bidartondo.  
**Nitrogen availability is a primary determinant of conifer mycorrhizas across complex environmental gradients**  
*Ecology Letters*, 13(9): 1103-1113, 2010. ISSN 1461-023X  
<http://dx.doi.org/10.1111/j.1461-0248.2010.01494.x>
- Crenshaw, C. L., N. B. Grimm, L. H. Zeglin, R. W. Sheibley, C. N. Dahm, and A. D. Pershall.  
**Dissolved inorganic nitrogen dynamics in the hyporheic zone of reference and human-altered southwestern U. S. streams**  
*Fundamental and Applied Limnology*, 176(4): 391-405, 2010. ISSN 1863-9135.  
<http://dx.doi.org/10.1127/1863-9135/2010/0176-0391>
- Cusack, D. F., M. S. Torn, W. H. McDowell, and W. L. Silver.  
**The response of heterotrophic activity and carbon cycling to nitrogen additions and warming in two tropical soils**  
*Global Change Biology*, 16(9): 2555-2572, 2010. ISSN 1354-1013.  
<http://dx.doi.org/10.1111/j.1365-2486.2009.02131.x>
- D'Amore, D. V., J. B. Fellman, R. T. Edwards, E. Hood.  
**Controls on dissolved organic matter concentrations in soils and streams from a forested wetland and sloping bog in southeast Alaska**  
*Ecohydrology*, 3(3): 249-261, 2010. ISSN 1936-0584.  
<http://dx.doi.org/10.1002/eco.101>
- Dalmonech, D., A. Lagomarsino, M. C. Moscatelli, T. Chiti, and R. Valentini.  
**Microbial performance under increasing nitrogen availability in a Mediterranean forest soil**  
*Soil Biology & Biochemistry*, 42(9): 1596-1606, 2010. ISSN 0038-0717.  
<http://dx.doi.org/10.1016/j.soilbio.2010.05.034>
- Danevcic, T., I. Mandic-Mulec, B. Stres, D. Stopar, and J. Hacin.  
**Emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from Southern European peatlands**  
*Soil Biology & Biochemistry*, 42(9): 1437-1446, 2010. ISSN 0038-0717  
<http://dx.doi.org/10.1016/j.soilbio.2010.05.004>
- David, M. B., L. E. Drinkwater, and G. F. McIsaac.  
**Sources of nitrate yields in the Mississippi River Basin**  
*Journal of Environmental Quality*, 39(5): 1657-1667, 2010. ISSN 0047-2425.  
<http://dx.doi.org/10.2134/jeq2010.0115>
- Edwards, P. J., and K. W. J. Williard.  
**Efficiencies of forestry best management practices for reducing sediment and nutrient losses in the Eastern United States**  
*Journal of Forestry*, 108(5): 245-249, 2010. ISSN 0022-1201.  
<http://saf.publisher.ingentaconnect.com/content/saf/jof/2010/00000108/00000005/art00005>

Elser, J. J., A. L. Peace, M. Kyle, M. Wojewodzic, M. L. McCrackin, T. Andersen, and D. O. Hessen.

**Atmospheric nitrogen deposition is associated with elevated phosphorus limitation of lake zooplankton**

*Ecology Letters*, 13(10): 1256-1261, 2010. ISSN 1461-023X.

<http://dx.doi.org/10.1111/j.1461-0248.2010.01519.x>

Esque, T. C., J. P. Kaye, S. E. Eckert, L. A. DeFalco, and C. R. Tracy.

**Short-term soil inorganic N pulse after experimental fire alters invasive and native annual plant production in a Mojave Desert shrubland**

*Oecologia*, 164(1): 253-263, 2010. ISSN 0029-8549.

<http://dx.doi.org/10.1007/s00442-010-1617-1>

Fan, J., M. D. Hao, and S. S. Malhi.

**Accumulation of nitrate-N in the soil profile and its implications for the environment under dryland agriculture in northern China: A review**

*Canadian Journal of Soil Science*, 90(3): 429-440, 2010. ISSN 0008-4271.

<http://dx.doi.org/10.4141/CJSS09105>

Fealy, R. M., C. Buckley, S. Mechan, A. Melland, P. E. Mellander, G. Shortle, D. Wall, and P. Jordan.

**The Irish Agricultural Catchments Programme: catchment selection using spatial multi-criteria decision analysis**

*Conference on Soil Quality - Does It Equal Environmental Quality, September, Johnstown Castle, Ireland*

*Soil Use and Management*, 26(3): 225-236, 2010. ISSN 0266-0032.

<http://dx.doi.org/10.1111/j.1475-2743.2010.00291.x>

Fragala, F. A., and G. Parkin.

**Local recharge processes in glacial and alluvial deposits of a temperate catchment**

*Journal of Hydrology*, 389(1-2): 90-100, 2010. ISSN 0022-1694.

<http://dx.doi.org/10.1016/j.jhydrol.2010.05.025>

Frankforter, J. D., H. S. Weyers, J. D. Bales, P. W. and D. L. Calhoun.

**The relative influence of nutrients and habitat on stream metabolism in agricultural streams**

*Environmental Monitoring and Assessment*, 168(1-4): 461-479, 2010. ISSN 0167-6369.

<http://dx.doi.org/10.1007/s10661-009-1127-y>

Galbally, I., C. P. Meyer, Y. P. Wang, and W. Kirstine.

**Soil-atmosphere exchange of CH<sub>4</sub>, CO, N<sub>2</sub>O and NO<sub>x</sub> and the effects of land-use change in the semiarid Mallee system in Southeastern Australia**

*Global Change Biology*, 16(9): 2407-2419, 2010. ISSN 1354-1013.

<http://dx.doi.org/10.1111/j.1365-2486.2010.02161.x>

Gewin, V.

**Nitrogen pollution alters soil microbial community**

*Frontiers in Ecology and the Environment*, 8(7): 344, 2010. ISSN 1540-9295.

<http://dx.doi.org/10.1890/1540-9295-8.7.340>

Glenn, S. M., and L. J. Lester.

**An analysis of the relationship between land use and arsenic, vanadium, nitrate and boron contamination in the Gulf Coast aquifer of Texas**

*Journal of Hydrology*, 389(1-2): 214-226, 2010. ISSN 0022-1694.

<http://dx.doi.org/10.1016/j.jhydrol.2010.06.002>

Gras, A., M. Ginovart, X. Portell, and P. C. Baveye.

**Individual-based modeling of carbon and nitrogen dynamics in soils: parameterization and sensitivity analysis of abiotic components**

*Soil Science*, 175(8): 363-374, 2010. ISSN 0038-075X.

<http://dx.doi.org/10.1097/SS.0b013e3181eda507>

Gutknecht, J. L. M., H. A. L. Henry, and T. C. Balser.

**Inter-annual variation in soil extra-cellular enzyme activity in response to simulated global change and fire disturbance**

*Pedobiologia*, 53(5): 283-293, 2010. ISSN 0031-4056.

<http://dx.doi.org/10.1016/j.pedobi.2010.02.001>

Hanlon, E. A., X. H. Fan, B. Gu, K. W. Migliaccio, Y. C. Li, and T. W. Dreschel.

**Water quality trends at inflows to Everglades National Park, 1977-2005**

*Journal of Environmental Quality*, 39(5): 1724-1733, 2010. ISSN 0047-2425.

<http://dx.doi.org/10.2134/jeq2009.0488>

Hannas, B. R., P. C. Das, H. Li, and G. A. LeBlanc.

**Intracellular conversion of environmental nitrate and nitrite to nitric oxide with resulting developmental toxicity to the crustacean *Daphnia magna***

*PLoS ONE*, 5(8): e12453, 2010. ISSN 1932-6203

<http://dx.doi.org/10.1371/journal.pone.0012453>

Harper, L. A., T. K. Flesch, and J. D. Wilson.

**Ammonia emissions from broiler production in the San Joaquin Valley**

*Poultry Science*, 89(9): 1802-1814, 2010. ISSN 0032-5791.

<http://dx.doi.org/10.3382/ps.2010-00718>

Hirsch, Robert M., Douglas L. Moyer, and Stacey A. Archfield.

**Weighted regressions on time, discharge, and season (wrtds), with an application to Chesapeake Bay river inputs**

*Journal of the American Water Resources Association (JAWRA)*, 46(5):857-880, 2010. ISSN 1752-1688.

<http://dx.doi.org/10.1111/j.1752-1688.2010.00482.x>

Howden, N. J. K., T. P. Burt, F. Worrall, M. J. Whelan, M. Bieroza.

**Nitrate concentrations and fluxes in the River Thames over 140 years (1868-2008): are increases irreversible?**

*Hydrological Processes*, 24(18): 2657-2662, 2010. ISSN 0885-6087.

<http://dx.doi.org/10.1002/hyp.7835>

Huszar, P., D. Cariolle, R. Paoli, T. Halenka, M. Belda, H. Schlager, J. Miksovsky, and P. Pisotf.  
**Modeling the regional impact of ship emissions on NO<sub>x</sub> and ozone levels over the Eastern Atlantic and Western Europe using ship plume parameterization**

*Atmospheric Chemistry and Physics*, 10(14): 6645-6660, 2010. ISSN 1680-7316.

<http://dx.doi.org/10.5194/acp-10-6645-2010>

Jiang, Y. M., C. R. Chen, Y. Q. Liu, and Z. H. Xu.

**Soil soluble organic carbon and nitrogen pools under mono- and mixed species forest ecosystems in subtropical China**

*Journal of Soils and Sediments*, 10(6): 1071-1081, 2010. ISSN 1439-0108.

<http://dx.doi.org/10.1007/s11368-010-0191-9>

Jing, Q., H. van Keulen, and H. Hengsdijk.

**Modeling biomass, nitrogen and water dynamics in rice-wheat rotations**

*Agricultural Systems*, 103(7): 433-443, 2010. ISSN 0308-521X.

<http://dx.doi.org/10.1016/j.agsy.2010.04.001>

Karaoglu, H., B. Kutrup, and H. Ogun.

**Intraspecific differences in responses of marsh frog (*Pelophylax ridibundus*) tadpoles exposed to environmentally relevant and acute levels of ammonium nitrate fertilizer**

*Journal of Freshwater Ecology*, 25(3): 353-366, 2010. ISSN 0270-5060.

Kennedy, N., and K. N. Egger.

**Impact of wildfire intensity and logging on fungal and nitrogen-cycling bacterial communities in British Columbia forest soils**

*Forest Ecology and Management*, 260(5): 787-794, 2010. ISSN 0378-1127.

<http://dx.doi.org/10.1016/j.foreco.2010.05.037>

Klanderud, K.

**Species recruitment in alpine plant communities: the role of species interactions and productivity**

*Journal of Ecology*, 98(5): 1128-1133, 2010. ISSN 0022-0477.

<http://dx.doi.org/10.1111/j.1365-2745.2010.01703.x>

Knotters, M., and D. J. Brus.

**Estimating space-time mean concentrations of nutrients in surface waters of variable depth**

*Water Resources Research*, 46, 2010. ISSN 0043-1397.

<http://dx.doi.org/10.1029/2009WR008350>

Kong, A. Y. Y., K. Hristova, K. M. Scow, and J. Six.

**Impacts of different N management regimes on nitrifier and denitrifier communities and N cycling in soil microenvironments**

*Soil Biology & Biochemistry*, 42(9): 1523-1533, 2010. ISSN 0038-0717.

<http://dx.doi.org/10.1016/j.soilbio.2010.05.021>

Kopacek, J., P. Cudlin, M. Svoboda, E. Chmelikova, J. Kana, and T. Picek.

**Composition of Norway spruce litter and foliage in atmospherically acidified and nitrogen-saturated Bohemian Forest stands, Czech Republic**

*Boreal Environment Research*, 15(4): 413-426, 2010. ISSN 1239-6095.

<http://www.borenv.net/BER/pdfs/ber15/ber15-413.pdf>

Kurganova, I. N., and V. O. L. de Gerenyu.

**Effect of the temperature and moisture on the N<sub>2</sub>O emission from some arable soils**

*Eurasian Soil Science*, 43(8): 919-928, 2010. ISSN 1064-2293.

<http://dx.doi.org/10.1134/S1064229310080090>

Lajtha, K., and J. Jones.

**Comment on 'Kane et al. 2008. Precipitation control over inorganic nitrogen import-export budgets across watersheds: a synthesis of long-term ecological research. Ecohydrology 1(2): 105-117'**

*Ecohydrology*, 3(3): 368-369, 2010. ISSN 1936-0584.

<http://dx.doi.org/10.1002/eco.97>

Lang, M., Z.-C. Cai, B. Mary, X. Hao and S. X. Chang.

**Land-use type and temperature affect gross nitrogen transformation rates in Chinese and Canadian soils**

*Plant and Soil*, 334(1-2): 377-389, 2010. ISSN 0032-079X.

<http://dx.doi.org/10.1007/s11104-010-0389-z>

Lassaletta, L., H. Garcia-Gomez, B. S. Gimeno, and J. V. Rovira.

**Headwater streams: neglected ecosystems in the EU Water Framework Directive.**

**Implications for nitrogen pollution control**

*Environmental Science & Policy*, 13(5): 423-433, 2010. ISSN 1462-9011.

<http://dx.doi.org/10.1016/j.envsci.2010.04.005>

Latimer, J. S., and M. A. Charpentier.

**Nitrogen inputs to seventy-four southern New England estuaries: Application of a watershed nitrogen loading model**

*Estuarine Coastal and Shelf Science*, 89(2): 125-136, 2010. ISSN 0272-7714.

<http://dx.doi.org/10.1016/j.ecss.2010.06.006>

Latimer, J. S., and S. A. Rego.

**Empirical relationship between eelgrass extent and watershed-derived nitrogen loading for shallow New England estuaries**

*Estuarine Coastal and Shelf Science*, In Press, Corrected Proof, Available online 29 September 2010. ISSN 0272-7714.

<http://dx.doi.org/10.1016/j.ecss.2010.09.004>

Lewandowski, J., and G. Nutzmann.

**Nutrient retention and release in a floodplain's aquifer and in the hyporheic zone of a lowland river**

*Ecological Engineering*, 36(9): 1156-1166, 2010. ISSN 0925-8574.

<http://dx.doi.org/10.1016/j.ecoleng.2010.01.005>

Lewis, W. M., and J. H. McCutchan.

**Ecological responses to nutrients in streams and rivers of the Colorado mountains and foothills**

*Freshwater Biology*, 55(9): 1973-1983, 2010. ISSN 0046-5070.

<http://dx.doi.org/10.1111/j.1365-2427.2010.02431.x>

Li, Q., B. H. Li, H. J. Kronzucker, and W. M. Shi.

**Root growth inhibition by NH<sub>4</sub><sup>+</sup> in *Arabidopsis* is mediated by the root tip and is linked to NH<sub>4</sub><sup>+</sup> efflux and GMPase activity**

*Plant Cell and Environment*, 33(9): 1529-1542, 2010. ISSN 0140-7791.

<http://dx.doi.org/10.1111/j.1365-3040.2010.02162.x>

Li, H. F., S. L. Fu, H. T. Zhao, and H. P. Xia.

**Effects of understory removal and N-fixing species seeding on soil N<sub>2</sub>O fluxes in four forest plantations in southern China**

*Soil Science and Plant Nutrition*, 56(4): 541-551, 2010. ISSN 0038-0768.

<http://dx.doi.org/10.1111/j.1747-0765.2010.00498.x>

Li, J., W. X. Lu, X. K. Zeng, J. H. Yuan, and F. R. Yu.

**Analysis of spatial-temporal distributions of nitrate-N concentration in Shitoukoumen catchment in northeast China**

*Environmental Monitoring and Assessment*, 169(1-4): 335-345, 2010. ISSN 0167-6369.

<http://dx.doi.org/10.1007/s10661-009-1174-4>

Lim, J. W., G. O. Bae, D. Kaown, and K. K. Lee.

**Prediction of groundwater contamination with multivariate regression and probabilistic capture zones**

*Journal of Environmental Quality*, 39(5): 1594-1603, 2010. ISSN 0047-2425.

<http://dx.doi.org/10.2134/jeq2009.0336>

Lindsay, E. A., M. J. Colloff, N. L. Gibb, and S. A. Wakelin.

**The abundance of microbial functional genes in grassy woodlands is influenced more by soil nutrient enrichment than by recent weed invasion or livestock exclusion**

*Applied and Environmental Microbiology*, 76(16): 5547-5555, 2010. ISSN 0099-2240.

<http://dx.doi.org/10.1128/AEM.03054-09>

Lu, X. K., J. M. Mo, F. S. Gilliam, G. Y. Zhou, and Y. T. Fang.

**Effects of experimental nitrogen additions on plant diversity in an old-growth tropical forest**

*Global Change Biology*, 16(10): 2688-2700, 2010. ISSN 1354-1013.

<http://dx.doi.org/10.1111/j.1365-2486.2010.02174.x>

Lukac, M., C. Calfapietra, A. Lagomarsino, and F. Loreto.

**Global climate change and tree nutrition: effects of elevated CO<sub>2</sub> and temperature**

*Tree Physiology*, 30(9): 1209-1220, 2010. ISSN 0829-318X.

<http://dx.doi.org/10.1093/treephys/tpq040>

Macrae, M. L., M. C. English, S. L. Schiff, and M. Stone.

**Influence of antecedent hydrologic conditions on patterns of hydrochemical export from a first-order agricultural watershed in Southern Ontario, Canada**

*Journal of Hydrology*, 389(1-2): 101-110, 2010. ISSN 0022-1694.

<http://dx.doi.org/10.1016/j.jhydrol.2010.05.034>

Maier, C., M. G. Weinbauer, and J. Patzold.

**Stable isotopes reveal limitations in C and N assimilation in the Caribbean reef corals**

***Madracis auretenra*, *M. carmabi* and *M. formosa***

*Marine Ecology-Progress Series*, 412: 103-112, 2010. ISSN 0171-8630.

<http://dx.doi.org/10.3354/meps08674>

McIsaac, G. F., M. B. David, and C. A. Mitchell.

**Miscanthus and switchgrass production in central Illinois: impacts on hydrology and inorganic nitrogen leaching**

*Journal of Environmental Quality*, 39(5): 1790-1799, 2010. ISSN 0047-2425.

<http://dx.doi.org/10.2134/jeq2009.0497>

McLauchlan, K. K., C. J. Ferguson, I. E. Wilson, T. W. Ocheltree, and J. M. Craine.

**Thirteen decades of foliar isotopes indicate declining nitrogen availability in central North American grasslands**

*New Phytologist*, 187(4): 1135-1145, 2010. ISSN 0028-646X.

<http://dx.doi.org/10.1111/j.1469-8137.2010.03322.x>

Mida, J. L., D. Scavia, G. L. Fahnenstiel, S. A. Pothoven, H. A. Vanderploeg, and D. M. Dolan.

**Long-term and recent changes in southern Lake Michigan water quality with implications for present trophic status**

*Journal of Great Lakes Research*, 36: 42-49, 2010. ISSN 0380-1330.

<http://dx.doi.org/10.1016/j.jglr.2010.03.010>

Millard, P., G. A. Grelet.

**Nitrogen storage and remobilization by trees: ecophysiological relevance in a changing world**

*Tree Physiology*, 30(9): 1083-1095, 2010. ISSN 0829-318X.

<http://dx.doi.org/10.1093/treephys/tpq042>

Moller, S. J., J. D. Lee, R. Commane, P. Edwards, D. E. Heard, J. Hopkins, T. Ingham, A. S. Mahajan, H. Oetjen, J. Plane, H. Roscoe, A. C. Lewis, and L. J. Carpenter.

**Measurements of nitrogen oxides from Hudson Bay: Implications for NO<sub>x</sub> release from snow and ice covered surfaces**

*Atmospheric Environment*, 44(25): 2971-2979, 2010. ISSN 1352-2310.

<http://dx.doi.org/10.1016/j.atmosenv.2010.05.015>

Moseman-Valtierra, S. M., K. Armaiz-Nolla, and L. A. Levin.

**Wetland response to sedimentation and nitrogen loading: diversification and inhibition of nitrogen-fixing microbes**

*Ecological Applications*, 20(6): 1556-1568, 2010. ISSN 1051-0761.

<http://dx.doi.org/10.1890/08-1881.1>

Naqvi, S. W. A., H. W. Bange, L. Farias, P. M. S. Monteiro, M. I. Scranton, and J. Zhang.

**Marine hypoxia/anoxia as a source of CH<sub>4</sub> and N<sub>2</sub>O**

*Biogeosciences*, 7(7): 2159-2190, 2010. ISSN 1726-4170.

<http://dx.doi.org/10.5194/bg-7-2159-2010>

Nash, D., M. Hannah, F. Robertson, and P. Rifkin.

**A Bayesian network for comparing dissolved nitrogen exports from high rainfall cropping in Southeastern Australia**

*Journal of Environmental Quality*, 39(5): 1699-1710, 2010. ISSN 0047-2425.

<http://dx.doi.org/10.2134/jeq2009.0348>

Ng, T. L., J. W. Eheart, X. M. Cai, and F. Miguez.

**Modeling Miscanthus in the Soil and Water Assessment Tool (SWAT) to simulate its water quality effects as a bioenergy crop**

*Environmental Science & Technology*, 44(18): 7138-7144, 2010. ISSN 0013-936X.

<http://dx.doi.org/10.1021/es9039677>

Nyerges, G., S. K. Han, and L. Y. Stein.

**Effects of ammonium and nitrite on growth and competitive fitness of cultivated methanotrophic bacteria**

*Applied and Environmental Microbiology*, 76(16): 5648-5651, 2010. ISSN 0099-2240.

<http://dx.doi.org/10.1128/AEM.00747-10>

Ochoa-Hueso, R., and E. Manrique.

**Nitrogen fertilization and water supply affect germination and plant establishment of the soil seed bank present in a semi-arid Mediterranean scrubland**

*Plant Ecology*, 210(2): 263-273, 2010. ISSN 1385-0237.

<http://dx.doi.org/10.1007/s11258-010-9755-4>

Ouyang, W., A. K. Skidmore, A. G. Toxopeus, and F. H. Hao.

**Long-term vegetation landscape pattern with non-point source nutrient pollution in upper stream of Yellow River basin**

*Journal of Hydrology*, 389(3-4): 373-380, 2010. ISSN 0022-1694.

<http://dx.doi.org/10.1016/j.jhydrol.2010.06.020>

Perez, C. A., M. R. Carmona, J. M. Farina, and J. J. Armesto.  
**Effects of nitrate and labile carbon on denitrification of southern temperate forest soils**  
*Chilean Journal of Agricultural Research*, 70(2): 251-258, 2010. ISSN 0718-5820.  
<http://www.chileanjar.cl/current.php?V=70&I=2>

Predick, K. I., and E. H. Stanley.  
**Influence of vegetation and seasonal flow patterns on parafluvial nitrogen retention in a 7(th)-order river**  
*Journal of the North American Benthological Society*, 29(3): 904-917, 2010. ISSN 0887-3593.  
<http://dx.doi.org/10.1899/09-049.1>

Puustinen, M., E. Turtola, M. Kukkonen, J. Koskiaho, J. Linjama, R. Niinioja, and S. Tattari.  
**VIHMA-A tool for allocation of measures to control erosion and nutrient loading from Finnish agricultural catchments**  
*Agriculture Ecosystems & Environment*, 138(3-4), 306-317, 2010. ISSN 0167-8809.  
<http://dx.doi.org/10.1016/j.agee.2010.06.003>

Rabotyagov, S., T. Campbell, M. Jha, P. W. Gassman, J. Arnold, L. Kurkalova, S. Secchi, H. L. Feng, and C. L. Kling.  
**Least-cost control of agricultural nutrient contributions to the Gulf of Mexico hypoxic zone**  
*Ecological Applications*, 20(6): 1542-1555, 2010. ISSN 1051-0761.  
<http://dx.doi.org/10.1890/08-0680.1>

Ramakrishnan, B., M. Megharaj, K. Venkateswarlu, R. Naidu, and N. Sethunathan.  
**The impacts of environmental pollutants on microalgae and cyanobacteria**  
*Critical Reviews in Environmental Science and Technology*, 40(8): 699-821, 2010. ISSN 1064-3389.  
<http://dx.doi.org/10.1080/10643380802471068>

Ranalli, A. J., and D. L. Macalady.  
**The importance of the riparian zone and in-stream processes in nitrate attenuation in undisturbed and agricultural watersheds - A review of the scientific literature**  
*Journal of Hydrology*, 389(3-4): 406-415, 2010. ISSN 0022-1694.  
<http://dx.doi.org/10.1016/j.jhydrol.2010.05.045>

Reef, R., I. C. Feller, and C. E. Lovelock.  
**Nutrition of mangroves**  
*Tree Physiology*, 30(9): 1148-1160, 2010. ISSN 0829-318X.  
<http://dx.doi.org/10.1093/treephys/tpq048>

Regina, K., and L. Alakukku.  
**Greenhouse gas fluxes in varying soils types under conventional and no-tillage practices**  
*Soil & Tillage Research*, 109(2): 152, 2010. ISSN 0167-1987.  
<http://dx.doi.org/10.1016/j.still.2010.05.009>

Ren, X., H. Gao, X. Zhou, J. D. Crounse, P. O. Wennberg, E. C. Browne, B. W. LaFranchi, R. C. Cohen, M. McKay, A. H. Goldstein, and J. Mao.

**Corrigendum to "Measurement of atmospheric nitrous acid at Blodgett Forest during BEARPEX2007" published in *Atmos. Chem. Phys.*, 10, 6283-6294, 2010**

*Atmospheric Chemistry and Physics*, 10(14): 6501, 2010. ISSN 1680-7316.

<http://dx.doi.org/10.5194/acp-10-6501-2010>

Rex, J. F., and E. L. Petticrew.

**Salmon-derived nitrogen delivery and storage within a gravel bed: Sediment and water interactions**

*Ecological Engineering*, 36(9): 1167-1173, 2010. ISSN 0925-8574.

<http://dx.doi.org/10.1016/j.ecoleng.2010.02.001>

Roy, J. W., and G. Bickerton.

**Proactive screening approach for detecting groundwater contaminants along urban streams at the reach-scale**

*Environmental Science & Technology*, 44(16): 6088-6094, 2010. ISSN 0013-936X.

<http://dx.doi.org/10.1021/es101492x>

Rozemeijer, J. C., Y. Van der Velde, F. C. Van Geer, G. H. De Rooij, P. J. J. F. Torfs, and H. P. Broers.

**Improving load estimates for NO<sub>3</sub> and P in surface waters by characterizing the concentration response to rainfall events**

*Environmental Science & Technology*, 44(16): 6305-6312, 2010. ISSN 0013-936X.

<http://dx.doi.org/10.1021/es101252e>

Rutting, T., T. J. Clough, C. Muller, M. Lieffering, and P. C. D. Newton.

**Ten years of elevated atmospheric carbon dioxide alters soil nitrogen transformations in a sheep-grazed pasture**

*Global Change Biology*, 16(9): 2530-2542, 2010. ISSN 1354-1013.

<http://dx.doi.org/10.1111/j.1365-2486.2009.02089.x>

Ruyters, S., J. Mertens, I. T'Seyen, D. Springael, and E. Smolders.

**Dynamics of the nitrous oxide reducing community during adaptation to Zn stress in soil**

*Soil Biology & Biochemistry*, 42(9): 1581-1587, 2010. ISSN 0038-0717.

<http://dx.doi.org/10.1016/j.soilbio.2010.05.036>

Schroder, W., M. Holy, R. Pesch, H. Harmens, H. Fagerli, R. Alber, M. Coskun, L. De Temmerman, M. Frolova, L. Gonzalez-Miqueo, Z. Jeran, E. Kubin, S. Leblond, S. Liiv, B. Mankovska, J. Piispanen, J. M. Santamaria, P. Simoneie, I. Suchara, L. Yurukova, L. Thoni, and H. G. Zechmeister.

**First Europe-wide correlation analysis identifying factors best explaining the total nitrogen concentration in mosses**

*Atmospheric Environment*, 44(29): 3485-3491, 2010. ISSN 1352-2310.

<http://dx.doi.org/10.1016/j.atmosenv.2010.06.024>

Seaver, G. A.

**Estuary response to an abrupt, large increase in groundwater nitrate input**

*Applied Geochemistry*, 25(9): 1453-1460, 2010. ISSN 0883-2927.

<http://dx.doi.org/10.1016/j.apgeochem.2010.07.003>

Sharma, G. P., S. A. Muhl, K. J. Esler, and S. J. Milton.

**Competitive interactions between the alien invasive annual grass *Avena fatua* and indigenous herbaceous plants in South African Renosterveld: the role of nitrogen enrichment**

*Biological Invasions*, 12(9): 3371-3378, 2010. ISSN 1387-3547.

<http://dx.doi.org/10.1007/s10530-010-9730-y>

Smith, A. J., and C. P. Tran.

**A weight-of-evidence approach to define nutrient criteria protective of aquatic life in large rivers**

*Journal of the North American Benthological Society*, 29(3): 875-891, 2010. ISSN 0887-3593.

<http://dx.doi.org/10.1899/09-076.1>

Smythe-Wright, D., C. Peckett, S. Boswell, and R. Harrison.

**Controls on the production of organohalogens by phytoplankton: Effect of nitrate concentration and grazing**

*Journal of Geophysical Research-Biogeosciences*, 115: G03020, 2010. ISSN 0148-0227.

<http://dx.doi.org/10.1029/2009JG001036>

Snapp, S. S., L. E. Gentry, and R. Harwood.

**Management intensity - not biodiversity - the driver of ecosystem services in a long-term row crop experiment**

*Agriculture Ecosystems & Environment*, 138(3-4): 242-248, 2010. ISSN 0167-8809.

<http://dx.doi.org/10.1016/j.agee.2010.05.005>

Teichberg, M., S. E. Fox, Y. S. Olsen, I. Valiela, P. Martinetto, O. Iribarne, E. Y. Muto, M. A. V. Petti, T. N. Corbisier, M. Soto-Jimenez, F. Paez-Osuna, P. Castro, H. Freitas, A. Zitelli, M. Cardinaletti, and D. Tagliapietra.

**Eutrophication and macroalgal blooms in temperate and tropical coastal waters: nutrient enrichment experiments with *Ulva* spp.**

*Global Change Biology*, 16(9): 2624-2637, 2010. ISSN 1354-1013.

<http://dx.doi.org/10.1111/j.1365-2486.2009.02108.x>

Toma, Y., S. D. Kimura, H. Yamada, Y. Hirose, K. Fujiwara, K. Kusa, and R. Hatano.

**Effects of environmental factors on temporal variation in annual carbon dioxide and nitrous oxide emissions from an unfertilized bare field on Gray Lowland soil in Mikasa, Hokkaido, Japan**

*Soil Science and Plant Nutrition*, 56(4): 663-675, 2010. ISSN 0038-0768.

<http://dx.doi.org/10.1111/j.1747-0765.2010.00486.x>

Trepel, M.

**Assessing the cost-effectiveness of the water purification function of wetlands for environmental planning**

*International Workshop on Ecosystems Services - Solution for Problems of a Problem that needs Solution, May, 2008, Salzau, Germany*

*Ecological Complexity*, 7(3): 320-326, 2010. ISSN 1476-945X.

<http://dx.doi.org/10.1016/j.ecocom.2010.02.006>

Tuppad, P., N. Kannan, R. Srinivasan, C. G. Rossi, J. G. Arnold.

**Simulation of agricultural management alternatives for watershed protection**

*Water Resources Management*, 24(12): 3115-3144, 2010. ISSN 0920-4741.

<http://dx.doi.org/10.1007/s11269-010-9598-8>

Tutmez, B., and Z. Hatipoglu.

**Comparing two data driven interpolation methods for modeling nitrate distribution in aquifer**

*Ecological Informatics*, 5(4): 311-315, 2010. ISSN 1574-9541.

<http://dx.doi.org/10.1016/j.ecoinf.2009.08.001>

van Verseveld, W. J., E. S. Kane, D. J. Sobota, I. H. Myers-Smith, and J. B. Fellman.

**Reply to comment on 'Kane et al. 2008. Precipitation control over inorganic nitrogen import-export budgets across watersheds: a synthesis of long-term ecological research.**

**Ecohydrology 1: 105-117'**

*Ecohydrology*, 3(3): 370-372, 2010. ISSN 1936-0584.

<http://dx.doi.org/10.1002/eco.107>

Vilain, G., J. Garnier, G. Tallec, and P. Cellier.

**Effect of slope position and land use on nitrous oxide (N<sub>2</sub>O) emissions (Seine Basin, France)**

*Agricultural and Forest Meteorology*, 150(9): 1192-1202, 2010. ISSN 0168-1923.

<http://dx.doi.org/10.1016/j.agrformet.2010.05.004>

Wang, C. H., and R. Buckley.

**A carbon cycle science update since IPCC AR-4**

*AMBIO*, 39(5-6): 451-453, 2010. ISSN 0044-7447.

<http://dx.doi.org/10.1007/s13280-010-0035-2>

Wang, F. H., Z. X. Dou, L. Ma, W. Q. Ma, J. T. Sims, F. S. Zhang.

**Nitrogen mass flow in China's animal production system and environmental implications**

*Journal of Environmental Quality*, 39(5): 1537-1544, 2010. ISSN 0047-2425.

<http://dx.doi.org/10.2134/jeq2010.0090>

Wang, Y. P., R. M. Law, and B. Pak.

**A global model of carbon, nitrogen and phosphorus cycles for the terrestrial biosphere**

*Biogeosciences*, 7(7): 2261-2282, 2010. ISSN 1726-4170.

<http://dx.doi.org/10.5194/bg-7-2261-2010>

Woli, K. P., M. B. David, R. G. Darmody, C. A. Mitchell, and C. M. Smith.  
**Assessing the nitrous oxide mole fraction of soils from perennial biofuel and corn-soybean fields**  
*Agriculture Ecosystems & Environment*, 138(3-4), 299-305, 2010. ISSN 0167-8809.  
<http://dx.doi.org/10.1016/j.agee.2010.06.002>

Wyatt, K. H., R. J. Stevenson, and M. R. Turetsky.  
**The importance of nutrient co-limitation in regulating algal community composition, productivity and algal-derived DOC in an oligotrophic marsh in interior Alaska**  
*Freshwater Biology*, 55(9): 1845-1860, 2010. ISSN 0046-5070.  
<http://dx.doi.org/10.1111/j.1365-2427.2010.02419.x>

Xue, X. B., and A. E. Landis.  
**Eutrophication potential of food consumption patterns**  
*Environmental Science & Technology*, 44(16): 6450-6456, 2010. ISSN 0013-936X.  
<http://dx.doi.org/10.1021/es9034478>

Yang, X. Y., and W. Jin.  
**GIS-based spatial regression and prediction of water quality in river networks: A case study in Iowa**  
*Journal of Environmental Management*, 91(10): 1943-1951, 2010. ISSN 0301-4797.  
<http://dx.doi.org/10.1016/j.jenvman.2010.04.011>

Young-Mathews, A., S. W. Culman, S. Sanchez-Moreno, A. T. O'Geen, H. Ferris, A. D. Hollander, and L. E. Jackson.  
**Plant-soil biodiversity relationships and nutrient retention in agricultural riparian zones of the Sacramento Valley, California**  
*Agroforestry Systems*, 80(1): 41-60, 2010. ISSN 0167-4366.  
<http://dx.doi.org/10.1007/s10457-010-9332-9>

Zhang, K. F., D. J. Greenwood, W. P. Spracklen, C. R. Rahn, J. P. Hammond, P. J. White, I. G. Burns.  
**A universal agro-hydrological model for water and nitrogen cycles in the soil-crop system SMCR\_N: Critical update and further validation**  
*Agricultural Water Management*, 97(10): 1411-1422, 2010. ISSN 0378-3774.  
<http://dx.doi.org/10.1016/j.agwat.2010.03.007>

## News

**ARS Chesapeake Bay research intensifies**  
*Agricultural Research*, August 2010  
<http://www.ars.usda.gov/is/AR/archive/aug10/chesapeake0810.htm>

**There's more than one way to save the bay**  
*Agricultural Research*, August 2010

<http://www.ars.usda.gov/is/AR/archive/aug10/bay0810.htm>

**Switchgrass lessens soil nitrate loss into waterways, ISU researcher says**

*Iowa State University News Service*, August 12, 2010

<http://www.news.iastate.edu/news/2010/aug/helmers>

**Paving slabs that clean the air**

*Fraunhofer Research News*, August 2010

<http://www.fraunhofer.de/en/press/research-news/2010/08/paving-slabs-that-clean-the-air.jsp>

Tennesen, Michael.

**Sour showers: Acid rain is back--this time triggered by nitrogen emissions**

*Scientific American: News Scan, Energy & Environment*, 303(3): 23-24, September 2010.

<http://dx.doi.org/10.1038/scientificamerican0910-23>

**Elevated nitrogen and phosphorus still widespread in much of the nation's streams and groundwater**

*USGS Newsroom*, September 23, 2010

<http://www.usgs.gov/newsroom/article.asp?ID=2599>

**For BNA subscribers (including EPA staff):**

**Gulf of Mexico: Gulf's 2010 'dead zone' among largest; researchers find no specific link to oil spill**

*Daily Environment Report*, August 3, 2010

[http://news.bna.com/deln/DELNWB/split\\_display.adp?fedfid=17588602&vname=dennotallissues&fcn=12&wsn=497826500&fn=17588602&split=0](http://news.bna.com/deln/DELNWB/split_display.adp?fedfid=17588602&vname=dennotallissues&fcn=12&wsn=497826500&fn=17588602&split=0)

**Water data and monitoring as indispensable tools to manage water quality**

*Daily Environment Report*, August 4, 2010

[http://news.bna.com/deln/DELNWB/split\\_display.adp?fedfid=17592385&vname=dennotallissues&fcn=16&wsn=497802500&fn=17592385&split=0](http://news.bna.com/deln/DELNWB/split_display.adp?fedfid=17592385&vname=dennotallissues&fcn=16&wsn=497802500&fn=17592385&split=0)

**Air pollution: Chinese ministries draft pilot project to tax nitrogen oxide, ammonia nitrogen emissions**

*Daily Environment Report*, August 12, 2010

[http://news.bna.com/deln/DELNWB/split\\_display.adp?fedfid=17618116&vname=dennotallissues&fcn=2&wsn=497604500&fn=17618116&split=0](http://news.bna.com/deln/DELNWB/split_display.adp?fedfid=17618116&vname=dennotallissues&fcn=2&wsn=497604500&fn=17618116&split=0)

**Chesapeake Bay: Waterborne copper, nitrates polluting bay tributary's ecosystem, USDA study finds**

*Daily Environment Report*, August 23, 2010

[http://news.bna.com/deln/DELNWB/split\\_display.adp?fedfid=17651082&vname=dennotallissues&fcn=6&wsn=497391500&fn=17651082&split=0](http://news.bna.com/deln/DELNWB/split_display.adp?fedfid=17651082&vname=dennotallissues&fcn=6&wsn=497391500&fn=17651082&split=0)

**Water pollution: Report urges better nutrient management to combat rising hypoxia in coastal waters**

*Daily Environment Report*, September 7, 2010

[http://news.bna.com/deln/DELNWB/split\\_display.adp?fedfid=17718641&vname=dennotallissues&wsn=501844000&searchid=12633162&doctypeid=1&type=date&mode=doc&split=0&scm=DELNWB&pg=1](http://news.bna.com/deln/DELNWB/split_display.adp?fedfid=17718641&vname=dennotallissues&wsn=501844000&searchid=12633162&doctypeid=1&type=date&mode=doc&split=0&scm=DELNWB&pg=1)

**Chesapeake Bay: USGS unveils nutrient monitoring system to guide bay restoration, assess remedies**

*Daily Environment Report*, September 20, 2010

[http://news.bna.com/deln/DELNWB/split\\_display.adp?fedfid=17802984&vname=dennotallissues&wsn=500674000&searchid=12633162&doctypeid=1&type=date&mode=doc&split=0&scm=DELNWB&pg=1](http://news.bna.com/deln/DELNWB/split_display.adp?fedfid=17802984&vname=dennotallissues&wsn=500674000&searchid=12633162&doctypeid=1&type=date&mode=doc&split=0&scm=DELNWB&pg=1)

**Air pollution: Report urges EPA to consider standards for nitrogen, sulfur based on acidification**

*Daily Environment Report*, September 21, 2010

[http://news.bna.com/deln/DELNWB/split\\_display.adp?fedfid=17806886&vname=dennotallissues&wsn=500554000&searchid=12633162&doctypeid=1&type=date&mode=doc&split=0&scm=DELNWB&pg=1](http://news.bna.com/deln/DELNWB/split_display.adp?fedfid=17806886&vname=dennotallissues&wsn=500554000&searchid=12633162&doctypeid=1&type=date&mode=doc&split=0&scm=DELNWB&pg=1)

**Water pollution: nutrient pollution plagues streams, aquifers despite regulatory efforts, USGS study finds**

*Daily Environment Report*, September 28, 2010

[http://news.bna.com/deln/DELNWB/split\\_display.adp?fedfid=17839836&vname=dennotallissues&wsn=500062000&searchid=12633162&doctypeid=1&type=date&mode=doc&split=0&scm=DELNWB&pg=0](http://news.bna.com/deln/DELNWB/split_display.adp?fedfid=17839836&vname=dennotallissues&wsn=500062000&searchid=12633162&doctypeid=1&type=date&mode=doc&split=0&scm=DELNWB&pg=0)

**For Greenwire subscribers (including EPA staff):**

**California: Elite science panel wades into water war**

*Greenwire*, August 2, 2010

<http://www.eenews.net/Greenwire/2010/08/02/2/>

**Water pollution: Gulf 'dead zone' among largest ever**

*Greenwire*, August 3, 2010

<http://www.eenews.net/Greenwire/2010/08/03/4/>

**Water pollution: Nitrogen chokes sea life and industry in Cape Cod**

*Greenwire*, August 18, 2010

<http://www.eenews.net/Greenwire/2010/08/18/14/>

**Air pollution: EPA cement kiln rules should benefit public lands, wildlife**

*Land Letter* , August 26, 2010

<http://www.eenews.net/Landletter/2010/08/26/6/>

**Water: Vegetation returns to Potomac River after decades of muck**

*Greenwire*, September 8, 2010

<http://www.eenews.net/Greenwire/2010/09/08/19>

**Agriculture: USDA finds basis for cutting emissions in existing farm programs**

*ClimateWire*, September 13, 2010

<http://www.eenews.net/climatewire/2010/09/13/6>

**Chesapeake Bay: Cleanup efforts netting mixed results, USGS finds**

*Greenwire*, September 17, 2010

<http://www.eenews.net/Greenwire/2010/09/17/11>

**Air pollution: SO<sub>2</sub>, NO<sub>x</sub> standards fail to protect environment -- EPA**

*Greenwire*, September 20, 2010

<http://www.eenews.net/Greenwire/2010/09/20/3>

**Water pollution: Nutrients continue to choke waterways, groundwater – USGS**

*Greenwire*, September 24, 2010

<http://www.eenews.net/Greenwire/2010/09/24/18>

**Chesapeake Bay: EPA unveils 'pollution diet,' threatens crackdown on lax states**

*E&ENews PM*, September 24, 2010

<http://www.eenews.net/eenewspm/2010/09/24/2>

**Chesapeake Bay: Algae could scrub away bay's water quality problems**

*Greenwire*, September 27, 2010

<http://www.eenews.net/Greenwire/2010/09/27/18>

**For Inside EPA subscribers (including EPA staff):**

**Environmentalists' Report Shows Public Health Benefits of SO<sub>2</sub>, NO<sub>x</sub> Controls**

Text Document, September 9, 2010

<http://insideepa.com/EPA-Documents-Low-Priority/Text-Document/environmentalists-report-shows-public-health-benefits-of-so2-nox-controls/menu-id-74.html>

**New EPA Data On Paved Areas Puts Focus On Suburban, Rural Runoff**

*Inside EPA*, September 24, 2010

<http://insideepa.com/Inside-EPA/Inside-EPA-09/24/2010/new-epa-data-on-paved-areas-puts-focus-on-suburban-rural-runoff/menu-id-153.html>

**USGS Study May Boost EPA Bid To Curb Drinking Water Nutrient Pollution**

*Inside EPA Water Policy Report*, September 27, 2010

<http://insideepa.com/Water-Policy-Report/Water-Policy-Report-09/27/2010/usgs-study-may-boost-epa-bid-to-curb-drinking-water-nutrient-pollution/menu-id-155.html>

**EPA Criticizes States' Chesapeake Bay Cleanup Plans, Releases TMDL**

*Inside EPA Water Policy Report*, September 27, 2010

<http://insideepa.com/Water-Policy-Report/Water-Policy-Report-09/27/2010/epa-criticizes-states-chesapeake-bay-cleanup-plans-releases-tmdl/menu-id-155.html>

## Reports

Dubrovsky, N.M., Burow, K.R., Clark, G.M., Gronberg, J.M., Hamilton P.A., Hitt, K.J., Mueller, D.K., Munn, M.D., Nolan, B.T., Puckett, L.J., Rupert, M.G., Short, T.M., Spahr, N.E., Sprague, L.A., and Wilber, W.G.

### **The quality of our Nation's waters—Nutrients in the Nation's streams and groundwater, 1992–2004**

U.S. Geological Survey, Circular 1350, 174 p., 2010.

<http://pubs.usgs.gov/circ/1350/>

### **Policy Assessment for the Review of the Secondary National Ambient Air Quality Standards for NO<sub>x</sub> and SO<sub>x</sub>: Second External Review Draft**

Research Triangle Park, North Carolina: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Health and Environmental Impacts Division, EPA 452/P-10-008, September, 2010.

<http://www.epa.gov/ttn/naaqs/standards/no2so2sec/data/20100915padraft.pdf>

Horowitz, John, and Jessica Gottlieb.

### **The Role of Agriculture in Reducing Greenhouse Gas Emissions**

U.S. Department of Agriculture, Economic Research Service.

Economic Brief Number 15, September 2010.

<http://www.ers.usda.gov/Publications/EB15/EB15.pdf>

### **Scientific Assessment of Hypoxia in U.S. Coastal Waters**

Joint Subcommittee on Ocean Science and Technology (JSOST) Interagency Working Group on Harmful Algal Blooms, Hypoxia, and Human Health, September 2010.

<http://www.whitehouse.gov/sites/default/files/microsites/ostp/hypoxia-report.pdf>

## Web Pages

### **Meteorological and Oceanographic Observations in the Coastal Gulf of Mexico**

<http://www.cengoos.org/>

Source: Central Gulf Ocean Observing System (CenGOOS)

### **WaterQualityWatch – Continuous Real-Time Water Quality of Surface Water in the United States**

<http://waterwatch.usgs.gov/wqwatch/>

Source: USGS

### **National Water Information System: Web Interface**

<http://waterdata.usgs.gov/nwis/>

Source: USGS